6U8-A

Medium-Mu Triode—Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical: ←

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	6.3	volts
Current	0.45 ± 6%	amp
Warm-up time (Average)	11	sec

Direct Interelectrode Capacitances:

	Without External Shield	*With External Shield*▲	
Triode Unit:			
Grid to plate	1.8	1.8	μμf
Grid to cathode and heater	2.8	2.8	μμf
Plate to cathode and heater	1.5	2	μμf
Pentode Unit:			
Grid No.1 to plate	0.015 max.	0.007 max.	μμf
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater	5	5	μμf
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater	2.6	3.5	μμf
Pentode grid No.1 to triode plate	0.2 max.	0.2 max.	μμf
Pentode plate to triode plate	0.1 max.	0.02 max.	μμf
Heater to cathode (Each unit)	3	3•	μμf

Characteristics, Class A$_1$ Amplifier: ←

	Triode Unit	*Pentode Unit*		
Plate Voltage	125	100	125	volts
Grid-No.2 Voltage	–	70	110	volts
Grid-No.1 Voltage	–1	–	–1	volt
Amplification Factor	40	–	–	
Plate Resistance (Approx.)	5400	–	200000	ohms
Transconductance	7500	5500	5000	μmhos
Plate Current	13.5	–	9.5	ma
Grid-No.2 Current	–	–	3.5	ma
Grid-No.1 Voltage (Approx.) for plate μa = 20	–9	–	–8	volts

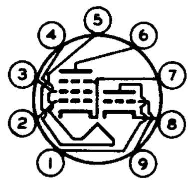
← Indicates a change.

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Mechanical:

Operating Position. . . . . Any
Maximum Overall Length. . . . . 2-3/16"
Maximum Seated Length . . . . 1-15/16"
Length, Base Seat to Bulb Top (Excluding tip) . . 1-9/16" ± 3/32"
→ Diameter. 0.750" to 0.875"
Dimensional Outline . . . . See *General Section*
Bulb. T6-1/2
Base. . . . . .Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW. 9AE

Pin 1 - Triode Plate
Pin 2 - Pentode Grid No.1
Pin 3 - Pentode Grid No.2
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Pentode Plate



Pin 7 - Pentode Cathode, Pentode Grid No.3, Internal Shield
Pin 8 - Triode Cathode
Pin 9 - Triode Grid

→ **AMPLIFIER — Class A₁**

Maximum Ratings, *Design-Maximum Values:*

	Triode Unit	*Pentode Unit*	
PLATE VOLTAGE	330 max.	330 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE.	-	330 max.	volts
GRID-No.2 VOLTAGE	-	See *Grid-No.2 Input Rating Chart* at front of Receiving Tube Section	
GRID-No.1 (CONTROL-GRID) VOLTAGE:			
Positive-bias value	0 max.	0 max.	volts
GRID-No.2 INPUT:			
For grid-No.2 voltages up to 165 volts	-	0.55 max.	watt
For grid-No.2 voltages between 165 and 330 volts .	-	See *Grid-No.2 Input Rating Chart* at front of Receiving Tube Section	
PLATE DISSIPATION	2.5 max.	3 max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200 max.	200★ max.	volts
Heater positive with respect to cathode.	200 max.	200★ max.	volts

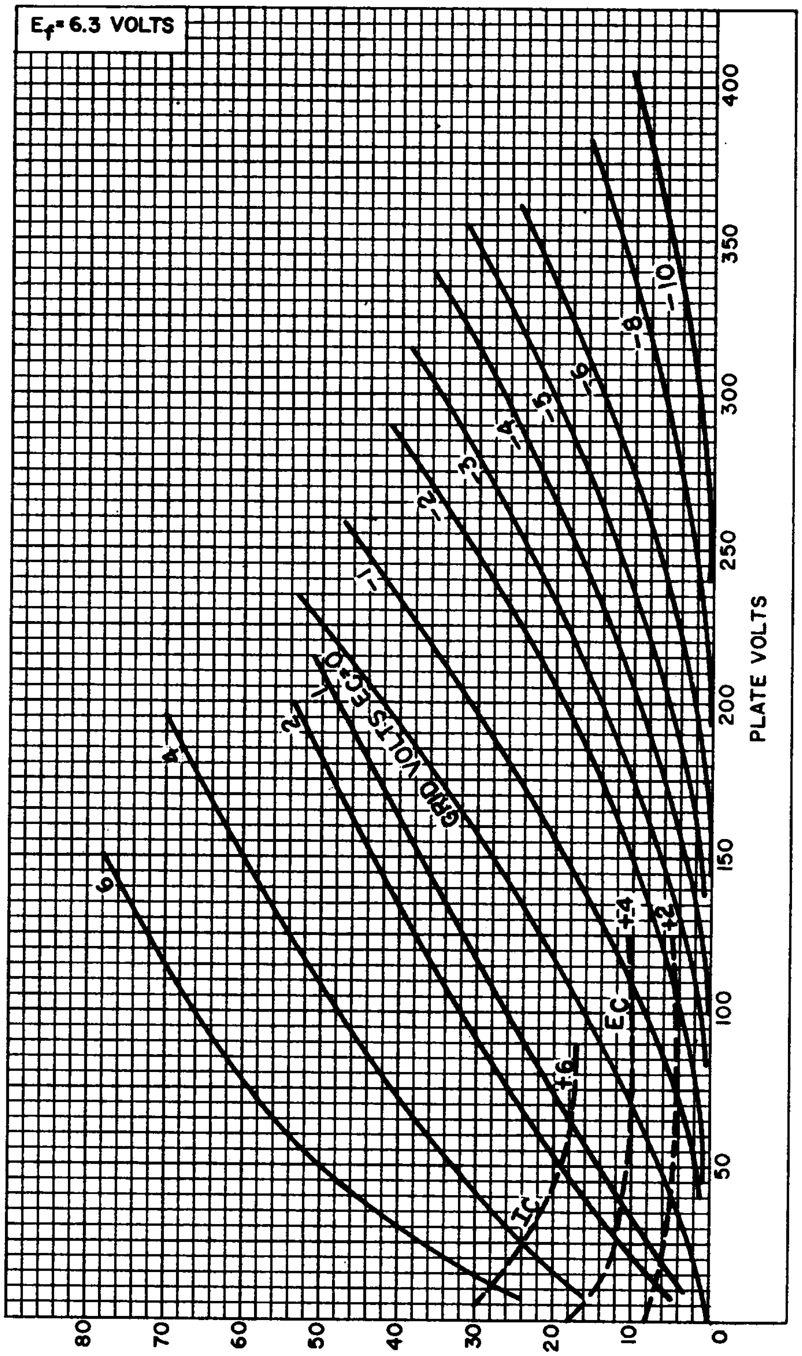
Maximum Circuit Values:

	Triode Unit	*Pentode Unit*	
Grid-No.1-Circuit Resistance:			
For fixed-bias operation.	-	0.5 max.	megohm
For cathode-bias operation. . . .	-	1 max.	megohm

▲ With external shield JEDEC No.315 connected to pin 4 except as noted.
● With external shield JEDEC No.315 connected to pin 6.
★ The dc component must not exceed 100 volts.

→ Indicates a change.

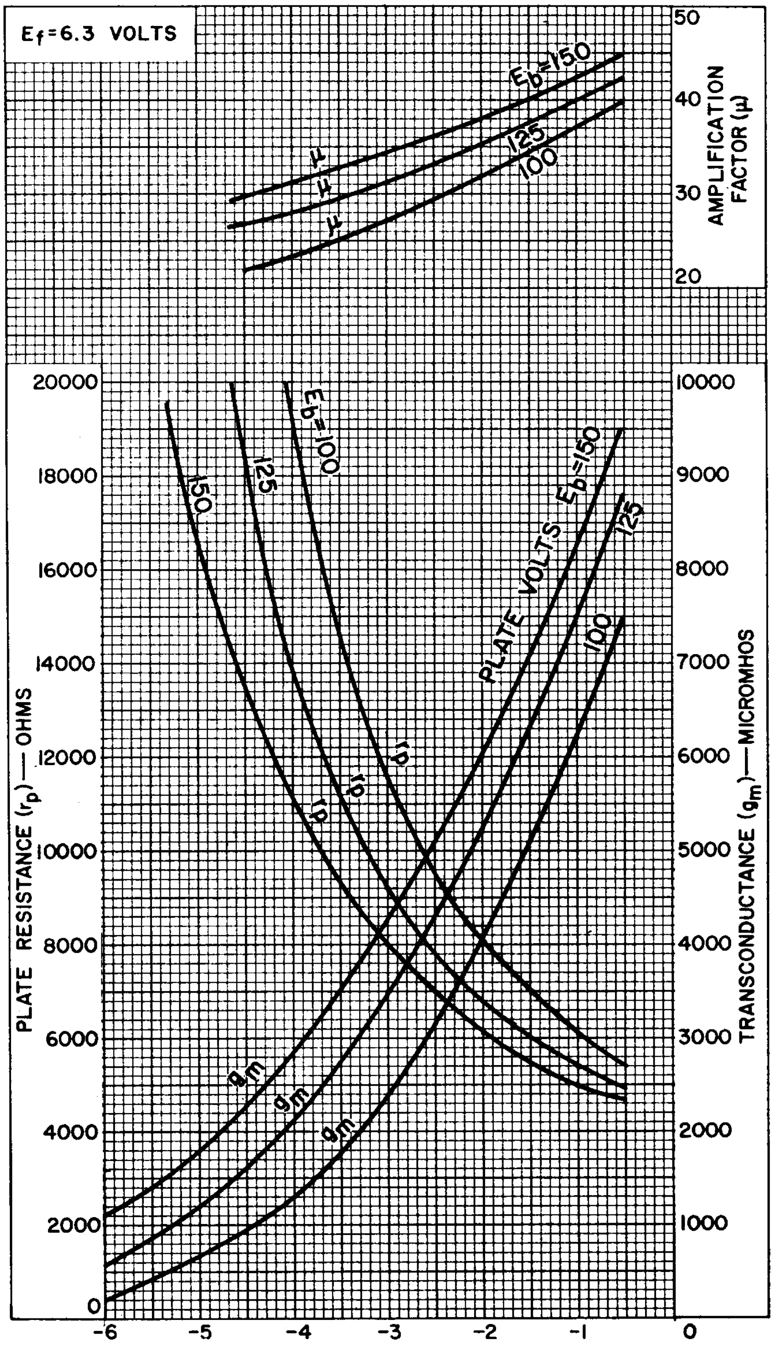
AVERAGE CHARACTERISTICS
Triode Unit



92CM-7873R2

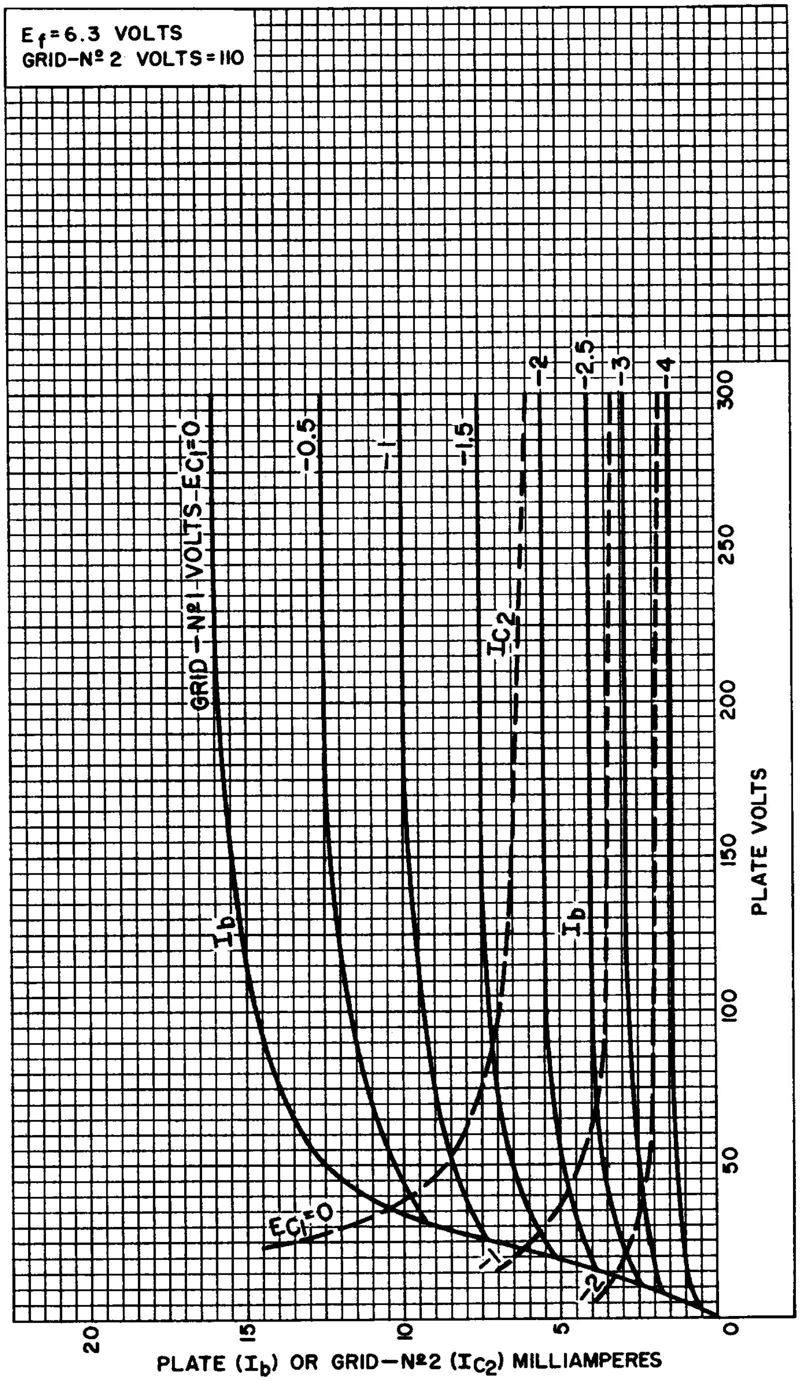
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AVERAGE CHARACTERISTICS
Triode Unit



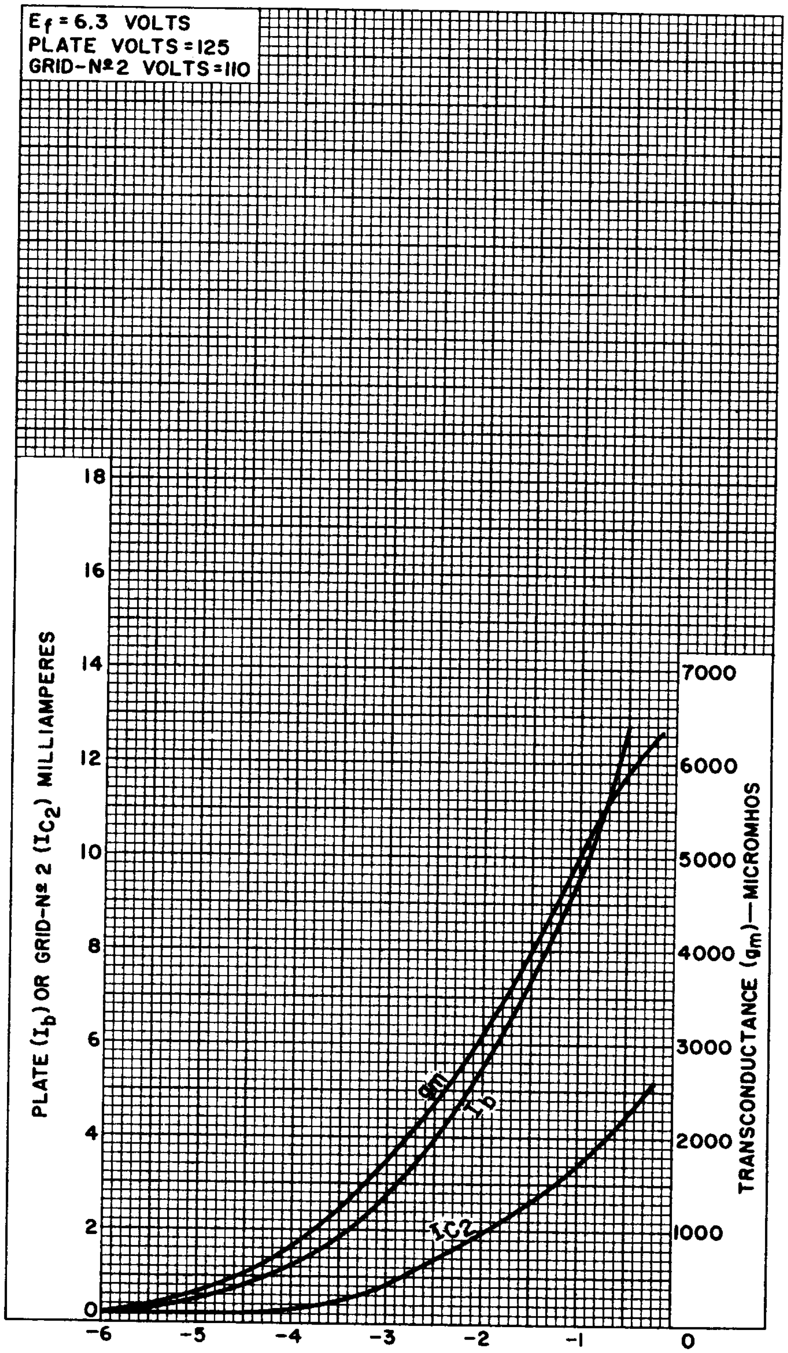
92CM-10900

AVERAGE CHARACTERISTICS
Pentode Unit



92CM-7869R1

AVERAGE CHARACTERISTICS
Pentode Unit



92CM-10902